



423729



7800 Medusa Street | Oakwood Village | OH 44146  
P: (440) 439-7400 | F: (440) 439-7446 | W: agmet1.com

December 8, 2011

***Via Certified Mail--Return Receipt Requested***

Ms. Michelle Kerr, Remedial Project Manager  
U.S. Environmental Protection Agency-Region 5  
Superfund Division (SR-6J)  
77 W. Jackson Blvd.  
Chicago, IL 60604-3590

Re: **Response to November 30, 2011, General Notice and Request for Information Regarding  
Chemetco Facility, Hartford, Illinois**

Dear Ms. Kerr:

Pursuant to the November 30, 2011, General Notice and Request for Information, Agmet LLC (formerly doing business as Agmet Metals) submitted its response previously to a June 23, 2011, Information Request. A copy of that response is enclosed with this letter for your convenience.

Agmet strongly believes it has no liability under CERCLA for any condition at the Site. As stated in the previous response to EPA's Information Request, Agmet sold 17.22 tons of material to Chemetco in August, 2001. The material was a non-hazardous tin-lead by-product that was sold to Chemetco to be processed. This was Agmet's only transfer of materials to Chemetco. Chemetco advised Agmet that the recovered tin and lead would be [and was,] recycled into finished tin and lead metal by Chemetco's related company Midco. As a result, none of this material could have been released into the environment at the Site.

Please remove Agmet from EPA's list of Potentially Responsible Parties.

Thank you.

Sincerely,

Dana J. Cassidy  
President & CEO



7800 Medusa Street | Oakwood Village | OH 44146  
P: (440) 439-7400 | F: (440) 439-7446 | W: agmet1.com

July 21, 2011

Ms. Marsha Adams, Enforcement Specialist  
U.S. Environmental Protection Agency  
Remedial Enforcement Support Section  
77 W. Jackson Blvd. SR-5J  
Chicago, IL 60604-3590

Re: **Response to Request for Information Regarding Chemetco Facility, Hartford, Illinois**

Dear Ms. Adams:

Pursuant to the June 23, 2011 Request for Information, Agmet LLC (formerly doing business as Agmet Metals) herein submits its response to each of the questions set forth in Enclosure 7 of the Request.

**INFORMATION REQUEST**

1. (a) Agmet LLC
- (b) Dana J. Cassidy, President & CEO of Agmet LLC  
7800 Medusa Street  
Oakwood Village, OH 44146
- (c) State of Incorporation: Delaware  
Agent for service: The Corporation Trust Company  
Corporation Trust Center  
1209 Orange Street  
Wilmington, DE 19801
- (d)-(f) Agmet Metals Trading, LLC  
State of Incorporation: Ohio  
Agent for service: Michael Agin  
2559 Cedarwood Road  
Pepper Pike, OH 44124  
Status: Active
- Glencore Nickel (USA), LLC  
State of Incorporation: Delaware  
Agent for service: Corporation Service Company  
2711 Centerville Road, Suite 400  
Wilmington, DE 19808  
Status: Active

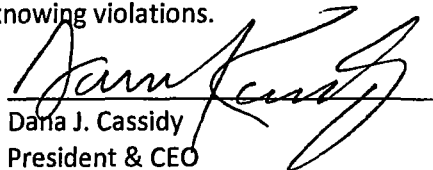
Agmet Metals, Inc.  
State of Incorporation: Ohio  
Agent for service: Michael Agin  
2559 Cedarwood Road  
Pepper Pike, OH 44124  
Status: Active

2. Agmet sold 17.22 tons of material to Chemetco in August, 2001. The material was a non-hazardous tin-lead by-product that was sold to Chemetco to be processed. See, customer contract attached and labeled as **Question 2-A**, and estimated invoice attached and labeled as **Question 2-B**. Actual sales price was \$0.01/lb. This was Agmet's only transfer of materials to Chemetco. Chemetco advised Agmet that the recovered tin and lead would be recycled into finished tin and lead metal by Chemetco's related company Midco.
3. Agmet had no role at the site.
4. Agmet had no activities in relation to the site in addition to the one-time shipment described in #2 above.
5. See description of material provided in #2 above. See, bill of lading and scale ticket attached and labeled as **Questions 5 & 6**. Agmet had no role at the site and did not control where waste sent to Chemetco warehouses was ultimately processed/recycled.
6. See date and circumstance described in #2 above. The carrier who transported the one-time shipment was Birmingham Nashville. See, bill of lading and scale ticket attached and labeled as **Questions 5 & 6**. See also, scale ticket already in U.S. EPA's possession and included in Enclosure 4 of the Request.
7. The transaction was option (1), an outright sale.
8. Agmet had no influence over waste disposal or recycling activities at the site.
9. Agmet's one-time shipment described in #2 was not refused or returned.
10. The material Agmet sold to Chemetco was a by-product Tin-Lead Bath Solids. See, determination of shipping name memo attached and labeled as **Question 10**.
  - (a) The materials were shipped directly to the site.
  - (b) Agmet did not test the material for characteristic metals because as a by-product, the material is exempt from regulation if recycled.
  - (c) See information provided in #2.
  - (d) See, the MSDS for the original chemical components attached and labeled as **Question 10(d)-A**, and the material profile form attached and labeled as **Question 10(d)-B**.

**SIGNED STATEMENT**

I certify under penalty of law that this document and all enclosures were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:

  
Dana J. Cassidy  
President & CEO  
Agmet LLC

Date: 7.21.11

*Stephanie - New terms  
for Tin/Lead*

DATE: June 11, 2001

FROM: Joseph E. Schiller

ATTENTION: Laura Shears

COMPANY: Federal-Mogul Corporation  
512 Grove St.  
Greenville, MI, 48838

NUMBER OF PAGES INCLUDING THIS PAGE: 2

RECYCLABLE MATERIAL: Mixed Nickel Wastes, and Tin/Lead Plating Bath Solids

Dear Ms. Shears:

Agmet is pleased to offer you the following proposal to recycle the three materials described below in detail.

Quantity: As shipments become available.

Delivery: F. O. B. Agmet's Oakwood, Ohio facility at 7800 Medusa St. Items will be in covered steel drums banded on pallets.

Charges and Payments:

MIXED NICKEL WASTES:

Analysis: Typically material is 15-25% Ni after calcining with an LOI of 40-80%

Charges: If the "as received" nickel content is over 10%, there is no recycling charge. If the "as received" nickel content is below 10%, Federal-Mogul will pay \$50 per drum processing fee to recycle the mixed nickel waste. There is an additional charge of \$2 per drum for each percent that the Nickel content of the calcined product falls below 10%.

TIN/LEAD PLATING BATH SOLIDS

Analysis: Typically material is 10-15% Sn and 2-5% F on an "as received" basis.

Charges: The charge will be \$690 per ton, and payment for Sn will be as follows: Deduct 1% of Sn for each % F, and pay 75% of the LME Sn price, averaged for the week of delivery.

Example: The sample provided by Federal Mogul assayed "as received" 13.6% Sn and 3.5% F. (The moisture content was 62%). Using the terms stated above with the LME Sn price of \$2.40/lb., the Sn credit would be:

$$\text{Credit} = [(13.6 - 3.5)/100] \times 2000 \times \$2.40 \times .75 = \$363.60$$

The net charge to Federal Mogul would be \$690 - \$363.60 = \$326.40

Settlement: 30 days from invoice.

Other Terms: Weighing, sampling, and assaying will be in accordance with Agmet's standard industry practice.

Please contact me with any questions.

Sincerely,

Joseph E. Schiller

Acceptance by Federal-Mogul

\_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

**AGMET METALS, INC.***Remit to:***PO BOX 631362****Cincinnati, OH 45263-1362****Phone (440) 439-7400 Fax (440) 439-7446**

✓

Chemetco

Code: Chemetco

| Our Invoice No. | Your Reference No. | Pick-Up Date | Billing Date | Ship VIA   | Acct. Rep. |
|-----------------|--------------------|--------------|--------------|------------|------------|
| 12512           |                    | 1-Aug-01     | 31-Aug-01    | Birmingham | D.Cassidy  |

**Invoice**

Plating Solids Tin/Lead

8-2681-01

|       |                 |    | <u>Price/LB</u> | <u>Value</u> |
|-------|-----------------|----|-----------------|--------------|
| Gross | 37,660 Drums    | 56 |                 |              |
| Tare  | (3,215) Pallets | 15 | 0.0001          | 3.44         |
| Net   | 34,445          |    |                 |              |

NO INVOICE NECESSARY, THEY JUST SEND IN CHECK  
PER D.C.

**Grand Total \$ 3.44**

**AGMET METALS, INC.***Remit to:*

P.O. Box 631362

Cincinnati, OH 45263-1362

(440) 439-7400 • FAX (440) 439-7446

PAGE 1

CHEMETCO  
3976 CHEMETCO LANE, ROUTE 3  
HARTFORD IL 62048

TERMS: NET  
ORDER NUMBER: 12512

ATTN: DENNIS MEYER

| OUR INVOICE NO. | YOUR REFERENCE NO. | PICK-UP DATE | BILLING DATE | SHIP VIA   |
|-----------------|--------------------|--------------|--------------|------------|
| 12512           |                    | 08/01/01     | 08/31/01     | BIRMINGHAM |

INVOICE  
1.00 lbs. =

PRICE EXTENSION  
1.00 EA @ 3.44/EA 3.44

SUBTOTAL 3.44  
TOTAL 3.44

AGMET METALS, INC.

Dana J. Cassidy



**Agmet Metals Inc.**

7800 MEDUSA STREET • OAKWOOD VILLAGE, OH 44146  
TELEPHONE: (440) 439-7400 • FAX: (440) 439-7446

**Internal  
corporate-  
MEMO**

April 14, 1998

TO: Linda Rupert / Joe Shiller  
FROM: Fred Warren  
SUBJECT: Federal Mogul by-product shipping information

Dear Colleagues;

I've exhausted my personal knowledge and had to resort to calling the DOT Information Hot-Line in Washington DC.

The consensus was to use the following as a proper shipping name:

**CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (STANNOUS FLUOBORATE)**

**CLASS 8**

**UN 3264**

**PG II**

**TIN / LEAD PLATING BATH SOLIDS ON FILTER PAPER WITH FREE LIQUID  
FOR METAL RECYCLING**

**1996 NORTH AMERICAN EMERGENCY GUIDE NUMBER # 154**

**MSDS # (s)**

**DRUM LABEL REQUIREMENT: CORROSIVE CLASS 8 UN3264  
CONTAINS TIN / LEAD SOLIDS**

**PLACARD REQUIREMENTS: CORROSIVE 8 (PANEL No.) 3264**

Thank you,

Fred

Shipper's No. 8-2681

RECEIVED, subject to the classifications and tariffs in effect on the date of issue of this original Bill of Lading.  
**7800 Medusa Street, Oakwood Village, Ohio 44146 (440) 439-7400**

Carrier's No. \_\_\_\_\_

Carrier's No. \_\_\_\_\_  
Date AUGUST 1<sup>ST</sup> 2001

**At** 7800 Medusa Street, Oakville, Ontario L4V 1V1  
**From** **AGMET METALS, INC.**

Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

Consigned to CHEMETCO

(Mail or street address of consignee - For purposes of notification only.)

Destination HARDFORD State IL.

### Delivery

Address ★

Route

( \*To be filled in only when shipper desires and governing tariffs provide for delivery thereat.)

Delivering Carrier Birmingham Nashville Car or Vehicle Initials 1397 No. 531446

Per**Shipper, Pe**

- Agent. Per

TRACTOR NO. 1397DATE 8-1-01TRAILER NO. 531446FLAT ☐VAN ☒BULK ☐IN ☐OUT ☒CARRIER Birmingham NashvilleMSDS 27ACCOUNT CHEMETCO - ILLINITIALS CKLOT # 8-2681

1397 ID. NO. 12:34 PM AUG 31 2001

MATERIAL Tins / Lead Plating Bath Solutions  
ON FILTER PAPER • I.D.

34140 1b GR

COUNT 56 DR / 15 Pallets • GROSS

1397 ID. NO. 12:52 PM AUG 01 2001

71800 1b GR

COMMENTS: \_\_\_\_\_ • TARE

34140 1b TR RECALLED

No inv. recd. • NET

37660 1b NT

they pay us. \* DANAAUG 31 2001  
AUG 1 2001\* Chemetco

8-2681

NO 13377

**Material Safety Data Sheet**

MSDS Number: WS-850

Page 1 of 1

**KESTER SOLDER**

Date Prepared: 18 May 1993

515 E. TOUHY AVENUE  
DES PLAINES, IL 60018

Supersedes: 27 May 1992

Prepared By: D. Bernier

Telephone Number For Information: (708) 287-1600

CHEMTREC 24-Hour Emergency Telephone Number: (800) 424-9300

**SECTION 1 - PRODUCT IDENTIFICATION AND USE**

WS-850 SOLDERPASTE

Product Name And Number As Used On Label

PRODUCT USE: Mixture of 90% solder powder with soldering flux for electrical or electronic applications.

NFPA Rating: Health: 2 Flammability: 1 Reactivity: 0 Special:

HMIS Rating: Health: 2 Flammability: 1 Reactivity: 0 Personal Protection: X

DOT: Not Regulated.

WHMIS: Class D, Division 2, Subdivision B

TDG: Packaging Group III, Class 9.2

NA = Not Applicable

NE = Not Established

UN = Unknown

**SECTION 2 - INGREDIENTS AND HAZARDS**

| HAZARDOUS INGREDIENTS 1% or greater<br>CARCINOGENS 0.1% or greater | C.A.S.<br>Number | WT.<br>% | OSHA<br>PEL<br>mg/m <sup>3</sup> | ACGIH TLV<br>TWA<br>mg/m <sup>3</sup> |
|--|------------------|----------|----------------------------------|---------------------------------------|
| Lead   | 7439-92-1 *      | 33.3     | 0.05                             | 0.15                                  |
| Tin  | 7440-31-5        | 56.7     | 2.0                              | 2.0                                   |
| Modified Rosin   | 61791-17-1       | 3        | NE                               | NE                                    |
| Hexylene Glycol  | 107-41-5         | <1       | NE                               | C125                                  |
|  |                  |          |                                  |                                       |
|  |                  |          |                                  |                                       |
|  |                  |          |                                  |                                       |
| NON-HAZARDOUS INGREDIENTS  |                  |          |                                  |                                       |
| Nonionic Surfactants   | 68439-49-6       | <1       | NE                               | NE                                    |
| Ethoxylated Amides   | 68155-24-8       | 4        | NE                               | NE                                    |
|  |                  |          |                                  |                                       |

NOTES: \* This Chemical is subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Profile # 3101 Com-Kyl Inc.

no appendix VIII compounds

**KESTER SOLDER**

M&DS Number: WS-850

Date Prepared: 18 May 1991

**SECTION 3 - PHYSICAL DATA**

|                                    |           |  |           |
|------------------------------------|-----------|--|-----------|
| Boiling Point (760 mm Hg):         | NA°F NA°C | Specific Gravity (water = 1 at 25 °C): | > 1       |
| Vapor Pressure (mm Hg at 20 °C):   | NA        | Melting Point:                         | NA°F NA°C |
| Vapor Density (air = 1):           | NA        | Evaporation Rate (butyl acetate = 1):  | < 0.1     |
| Solubility in Water (% by weight): | < 10      | % Volatile (by volume):                | 0         |
| pH: NA                             |           | Volatile Organic Compound (VOC):       | 0 g/liter |
|                                    |           | Odor Threshold:                        | NE        |

Appearance and Odor: Gray metallic paste with mild odor.

**SECTION 4- FIRE AND EXPLOSION HAZARD DATA**

Flash Point (T.O.C.): > 200 °F > 93.3 °C Auto-Ignition Temperature: > 440 °F > 226 °C  
 Flammability Limits % by volume in air LEL: NE UEL: NE  
 Extinguishing Media: ( ) WATER (X) CARBON DIOXIDE ( ) ALCOHOL FOAM (X) DRY CHEMICAL  
 Hazardous Combustion Products: Carbon monoxide, carbon dioxide, lead oxide fumes.  
 Explosion Sensitivity: Impact - None Identified Static discharge - ( ) Yes (X) No  
 Special Firefighting Procedures: Wear self-contained breathing apparatus if this material is in the vicinity of a fire.  
 Unusual Fire and Explosion Hazards: None.

**SECTION 5 - REACTIVITY HAZARD DATA**

STABILITY (X) Stable ( ) Unstable Conditions to Avoid: None

Incompatibility (materials to avoid): Strong acids, strong oxidizers.  
 Hazardous Decomposition Products: When heated to soldering temperatures, the solvents are evaporated and thermal degradation products may include aliphatic aldehydes and acids. No lead is detected in fumes from soldering below 1000°F (537°C).

**HAZARDOUS POLYMERIZATION:**

( ) May Occur Conditions To Avoid: NE  
 (X) Will Not Occur

KESTER SOLDER

MSDS Number: WS-850

Page 3 of 4

Date Prepared: 18 May 1993

**SECTION 6 - HEALTH HAZARD DATA****EXPOSURE LIMITS:** Ingested LD(50): NE g/Kg Inhaled LC(50): NE g/Kg

Primary exposure during soldering is to evaporated solvent which may contain droplets of rosin and/or other organic decomposition products.

**PRIMARY ROUTES OF ENTRY:** ( ) Skin (X) Eyes (X) Inhalation (X) Ingestion**TARGET ORGANS:** Flux fumes: eyes, mucous membranes and respiratory system. Ingestion of lead metal can affect kidneys, gastrointestinal, reproductive and neurological systems.**EFFECTS OF ACUTE (severe short-term) EXPOSURE:****INHALATION:** Flux fumes during soldering may cause irritation and damage of mucous membranes and respiratory system.**SKIN CONTACT:** Possible local irritation.**SKIN ABSORPTION:** None**EYE CONTACT:** Irritation from contact with smoke from soldering.**INGESTION:** Most of the solderpaste will pass through the body unabsorbed. Lead that is absorbed is caught by the liver and, in part, excreted in the bile.**EFFECTS OF CHRONIC (prolonged) EXPOSURE:** Prolonged or repeated contact with skin can cause a rash. Breathing fumes during soldering may cause respiratory irritation, headache and irritation of mucous membranes. Repeated ingestion of lead can result in systemic poisoning.**Medical Conditions Generally Aggravated by Exposure:** Pre-existing conditions of the lungs, diseases of the blood and blood-forming organs, kidneys, nerves and possibly reproductive system.**CARCINOGEN** ( ) NTP ( ) OSHA (9) IARC ( ) Not Listed**EMERGENCY FIRST AID PROCEDURES:** Seek medical assistance for further treatment, observation and support if needed**EYE CONTACT:** Flush eyes with plenty of water and get medical attention.**SKIN CONTACT:** Wash thoroughly with soap and water.**INHALATION:** Remove victim to fresh air.**INGESTION:** Gastric lavage (stomach pumping) if physician advises. Get prompt medical attention.

KESTER SOLDER

MSDS Number: WS-850

Page 4 of 4

Date Prepared: 18 May 1993

## SECTION 7 - PROCEDURES FOR MATERIAL CONTROL

**Steps to be Taken If Material Is Spilled Or Released:** Scoop up paste and deposit in appropriate containers.  
Clean up residual with isopropanol or detergent water.

**Waste Disposal Methods:** Solderpaste can be melted to reclaim the solder metal. Containers and extracted flux are hazardous waste.

**CAUTION:** Empty containers may contain product residue. Observe all label precautions.

**Precautions to be Taken in Handling and Storage:** Store at or near 70°F (21°C) in closed containers. Wash hands after handling solderpaste and before eating or smoking. Care should be taken to remove solderpaste from under fingernails.

## SECTION 8 - PROTECTIVE MEASURES

**Respiratory Protection:** Usually not required. When ventilation is not adequate to remove smoke from the breathing zone, a cartridge type respirator should be worn.

**Protective Gloves:** Plastic or rubber gloves where necessary to avoid skin contact.

**Eye Protection:** Safety glasses especially during soldering.

**VENTILATION TO BE USED:** Provide adequate exhaust ventilation (general and / or local) to meet TLV requirements.

**Other Protective Clothing and Equipment:** Do not wear contaminated clothing or shoes home.

**Hygienic Work Practices:** Wash hands thoroughly after handling solderpaste.

## SECTION 9 - ADDITIONAL INFORMATION

If the solder contains lead, these precautions are applicable.

This product contains lead which is known to the State of California to cause cancer, birth defects or other reproductive harm.

Lead and its compounds have been placed in Class B2, probably carcinogenic to humans by USEPA.

IARC has placed lead and its compounds in Class 2B, possibly carcinogenic to humans.

The information contained herein is based on data considered accurate and is offered solely for information, consideration and investigation. Kester Solder extends no warranties, makes no representations and assumes no responsibility as to the accuracy, completeness or suitability of this data for any purchaser's use. The data on this Material Safety Data Sheet relates only to this product and does not relate to use with any other material or in any process. All chemical products should be used only by or under the direction of technically qualified Hazardous Materials Information System (WHMIS), require that employees must be trained and use the Material Safety Data Sheet as a source for hazard information.


 PRODUCT SAFETY  
DATA SHEET

**LEAD FLUOBORATE SOLUTION**
**A. GENERAL INFORMATION**

|   |                                       |  |   |
|---|---------------------------------------|--|---|
| TRADE NAME (COMMON NAME)<br><b>LEAD FLUOBORATE SOLUTION</b>   |                                       | <input checked="" type="checkbox"/> C.A.S. NO. <input type="checkbox"/> GENERAL PRODUCT CODE #<br><div style="text-align: right;">13814-98-5</div> |   |
| CHEMICAL NAME AND/OR SYNONYM<br>Lead Fluoborate in water                      Synonym: Lead fluoroborate; Lead boron fluoride;<br>[Assay: 50-52% Pb(BF <sub>4</sub> ) <sub>2</sub> ]                      Borate (1-), Tetrafluoro-, Lead (2+). |                                       |  |   |
| FORMULA<br><b>Pb(BF<sub>4</sub>)<sub>2</sub> + H<sub>2</sub>O</b>   |                                       | MOLECULAR WEIGHT<br><b>380.81/18.02</b>  |   |
| ADDRESS (NO., STREET, CITY, STATE AND ZIP CODE)<br><b>GENERAL CHEMICAL CORPORATION<br/>CN 1829<br/>Morristown, N.J. 07960-1829</b>  |                                       |  |   |
| CONTACT<br><b>Director Environmental Matters</b>  | PHONE NUMBER<br><b>(201) 455-5630</b> | LAST ISSUE DATE  | CURRENT ISSUE DATE<br><b>Sept. 1986</b> |

**B. FIRST AID MEASURES**

|   |   |
|---|---|
| Eyes: Flush eyes immediately for 15-20 minutes with large amounts of water, holding eyelids open to allow thorough flushing (use water only). Seek medical evaluation of potential eye burns.<br>Skin: Promptly wash with plenty of soap and water, then flush with water until all chemical is removed. Treat as an acid burn, if severe, and seek medical aid. Promptly remove contaminated clothing and wash before reuse.<br>Inhalation: Remove to fresh air. If breathing is difficult, give oxygen, if a qualified operator is available. If not breathing, give artificial respiration, preferably mouth-to-mouth. If symptoms persist, get medical help.<br>Ingestion: Call a physician at once. Do not induce vomiting. If conscious, give several glasses of milk or several ounces of milk of magnesia, if available; otherwise, give large quantities of water and keep patient warm and quiet. | EMERGENCY PHONE NUMBER<br><b>(201) 455-3700</b> |
|---|---|

**C. HAZARDS INFORMATION**  
**HEALTH**

|   |   |
|---|---|
| <b>INHALATION</b><br>Mist inhalation can cause headache, cramps, pain in legs, coma. Chronic exposure may damage the central and peripheral nervous system.   |   |
| <b>INGESTION</b><br>Symptoms include: Metallic taste, abdominal pain, vomiting, diarrhea, collapse, convulsions and coma. Fatal dose (human) is estimated to be 0.5 gram of absorbed lead. Hypocalcemia, possibly severe or fatal, may occur due to the fluoride content, which can precipitate calcium stored in the body. |   |
| <b>SKIN</b><br>Liquid contact causes irritation. Prolonged contact will intensify this condition and may cause burns.   |   |
| <b>EYES</b><br>Liquid contact causes irritation, possibly severe, and burns may result. Mists will also irritate.   |   |
| PERMISSIBLE CONCENTRATION: AIR<br>(SEE SECTION J)<br><b>ACGIH/TLV: 0.15 mg/cu.m. (dusts/fumes, as Pb)</b>   | BIOLOGICAL    Action Level:<br><b>See Section K</b> |
| <b>UNUSUAL CHRONIC TOXICITY</b><br>Extended inhalation of mist may cause some of the chronic symptoms noted from experience with lead fumes and dust. Among these are metallic taste, loss of appetite, indigestion, nausea, vomiting, constipation, abdominal cramps, nervousness, and insomnia. See, also, Section K.     |   |



# **C**

## **FIRE AND EXPLOSION**

|  |                                     |                           |    |  |
|--|-------------------------------------|---------------------------|----|--|
| FLASH POINT  | N.A. °C                             | AUTO IGNITION TEMPERATURE | OC | FLAMMABLE LIMITS IN AIR (% BY VOL.)              |
| Not flammable  |                                     | Not applicable            |    | LOWER – Not applicable    UPPER – Not applicable |
| <input type="checkbox"/> OPEN CUP  | <input type="checkbox"/> CLOSED CUP |                           |    |  |
| UNUSUAL FIRE AND EXPLOSION HAZARDS   |                                     |                           |    |  |
| At or above the boiling point ( $>100^{\circ}\text{C}$ ), the solution gives off toxic mist. |                                     |                           |    |  |

### **FIRE EXTINGUISHING AGENTS RECOMMENDED**

Use foam, carbon dioxide or dry chemical. Product itself is nonflammable.

### **FIRE EXTINGUISHING AGENTS TO AVOID**

Do not use water stream directly on material itself. Use water spray to absorb or disperse vapors.

### **SPECIAL FIRE FIGHTING PRECAUTIONS**

Avoid breathing vapors and fumes from burning material. Avoid bodily contact with the material. Wear self-contained breathing apparatus, approved by NIOSH. If contact with the material is anticipated, wear full protective clothing. Use water spray to keep fire-exposed containers cool.

### **VENTILATION**

If misty conditions prevail, provide local exhaust ventilation, or a ventilated closed system (e.g., hood). Natural ventilation is normally adequate in the absence of misty conditions.

### **NORMAL HANDLING**

Do not get in eyes, on skin or clothing. Avoid breathing mist, if formed. Observe scrupulous personal hygiene and good housekeeping practices. Wash thoroughly after handling. Use with adequate ventilation and do not eat or smoke while handling.

### **STORAGE**

Store in a dry, well-ventilated area, out of the sun, away from heat and food products. Keep containers tightly closed and protect from physical damage. Periodically inspect drums and storage conditions.

### **SPILL OR LEAK (ALWAYS WEAR PERSONAL PROTECTIVE EQUIPMENT - SECTION 8)**

Contain spill with readily available material (earth, sand, etc.). Using caution, flush with water to dilute spill or neutralize it with alkali such as sodium carbonate. Keep out of sewer. Mop or pump up into suitable container, cover and label for storage and later disposal (see Waste Disposal, Section 1).

### **SPECIAL PRECAUTIONS/PROCEDURES/LABEL INSTRUCTIONS**

### **SIGNAL WORD – DANGER!**

This solution is corrosive to aluminum. Do not reuse container when empty. Persons exposed to mist inhalation or other contact should have medical surveillance. Regular safety training is recommended.

### **RESPIRATORY PROTECTION**

If misty conditions prevail and concentration is greater than TLV but under  $2.5 \text{ mg(Pb)}/\text{m}^3$ , wear a NIOSH-approved, high-efficiency particulate respirator. This may be used up to  $2.5 \text{ mg(Pb)}/\text{m}^3$ , if a full facepiece is added. For very high concentrations ( $> 50 \text{ mg(Pb)}/\text{m}^3$ ), use a self-contained or supplied-air breathing system with full facepiece operated in pressure-demand mode, approved by NIOSH.

### **EYES AND FACE**

Under normal working conditions, wear chemical safety goggles; add a full-face plastic shield if solution may be splashed or sprayed, and there is any possibility of liquid contacting the eyes. Do not wear contact lenses.

### **HANDS, ARMS, AND BODY**

Wear protective rubber gloves and protective clothing, if there is repeated or prolonged contact with liquid. Remove promptly any contaminated items of clothing and wash before reuse. Do not take home work clothes or shoes. Shower after work and change any clothing that may have been contaminated.

### **OTHER CLOTHING AND EQUIPMENT**

Neutralizing supplies and equipment, if called for by pre-planned spill or leak procedures. Provide eyewash stations and quick-drench shower facilities near work areas.

**F. PHYSICAL DATA**

|  |   |   |  |
|--|---|---|--|
| <b>MATERIAL IS (AT NORMAL CONDITIONS):</b><br><input checked="" type="checkbox"/> LIQUID <input type="checkbox"/> SOLID <input type="checkbox"/> GAS<br><input type="checkbox"/> _____ |   | <b>APPEARANCE AND ODOR</b><br>Colorless liquid with relatively no odor.   |  |
| <b>BOILING POINT</b> > 100°C<br><b>MELTING POINT</b> < 0°C   | <b>SPECIFIC GRAVITY</b><br>(H <sub>2</sub> O = 1)<br>(liquid)<br>1.75 (approx.) | <b>VAPOR DENSITY</b><br>(AIR = 1)<br>Not applicable<br>(water vapor only)   |  |
| <b>SOLUBILITY IN WATER</b><br>(% by Weight)<br>Complete  | <b>pH</b><br>Unknown, but estimated<br>to be acidic                             | <b>VAPOR PRESSURE</b><br>(mm Hg at 20°C) <input type="checkbox"/> (PSIG) <input type="checkbox"/><br>Not applicable |  |
| <b>EVAPORATION RATE</b><br>(Butyl Acetate = 1) <input type="checkbox"/> (Ether = 1) <input type="checkbox"/><br>Not applicable   | <b>% VOLATILES BY VOLUME</b><br>(At 20°C)<br>Not applicable                     |   |  |

**G. REACTIVITY DATA**

|   |   |
|---|---|
| <b>STABILITY</b><br><input type="checkbox"/> UNSTABLE <input checked="" type="checkbox"/> STABLE  | <b>CONDITIONS TO AVOID</b><br>Evaporation to dryness with sustained heating (as in an accidental fire). |
| <b>INCOMPATIBILITY (MATERIALS TO AVOID)</b><br>Cyanides; calcium carbide; fluorine; water-reactive materials.   |   |
| <b>HAZARDOUS DECOMPOSITION PRODUCTS</b><br>Heating solution to or above boiling point gives off toxic mist.<br>Heating of residue, if evaporated to dryness, may yield toxic gases. |   |
| <b>HAZARDOUS POLYMERIZATION</b><br><input type="checkbox"/> MAY OCCUR <input checked="" type="checkbox"/> WILL NOT OCCUR  | <b>CONDITIONS TO AVOID</b><br>None known.   |

**H. HAZARDOUS INGREDIENTS (Mixtures Only)**

| MATERIAL OR COMPONENT/C.A.S. # | WT. % | HAZARD DATA (SEE SECT. J) |
|--------------------------------|-------|---------------------------|
| Not applicable                 |       |                           |

**I. ENVIRONMENTAL**

|   |  |   |                          |
|---|--|---|--------------------------|
| <b>DEGRADABILITY/AQUATIC TOXICITY</b>   |  | <b>OCTANOL/WATER PARTITION COEFFICIENT</b>                                  |                          |
| Degradability: N.A. (inorganic)   |  | Unknown   |                          |
| Aquatic toxicity: No data found.  |  |   |                          |
| <b>EPA HAZARDOUS SUBSTANCE?</b><br>(CLEAN WATER ACT SECT 311) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO   |  | <b>IF SO, REPORTABLE QUANTITY:</b> 5000 * (dry basis)<br>9800 (as is basis) | <b>40 CFR</b><br>118-117 |
| <b>WASTE DISPOSAL METHOD(S) (DISPOSER MUST COMPLY WITH FEDERAL, STATE AND LOCAL DISPOSAL OR DISCHARGE LAWS)</b>   |  |   |                          |
| Waste may be neutralized with caution, using any of the following agents: $\text{CaO}$ ; $\text{Ca}(\text{OH})_2$ ; $\text{NaOH}$ ; $\text{Na}_2\text{CO}_3$ . Do not sewer. Disposal of waste lead fluoborate solution may be subject to federal, state and local regulations. Users should review their operations in terms of applicable federal, state and local laws and regulations; then consult with appropriate regulatory agencies before discharging or disposing of waste material. |  |   |                          |
| <b>RCRA STATUS OF UNUSED MATERIAL IF DISCARDED:</b><br>Hazardous waste (lead, EP toxicity) if discarded at concentration as strong as 5 mg(Pb)/liter.   |  | <b>HAZARDOUS WASTE NUMBER: (IF APPLICABLE)</b><br>D008                      | <b>40 CFR</b><br>261     |

**J. REFERENCES**

|   |  |                          |                   |
|---|--|--------------------------|-------------------|
| <b>PERMISSIBLE CONCENTRATION REFERENCES</b>   |  |                          |                   |
| TWA: OSHA Standard, 29 CFR 1910 (1982), "Z List".<br>TLV: ACGIH 1984-85 List: "Threshold Limit Values for Chemical Substances. . ."<br>NIOSH Registry (RTECS), 1981-82, Accession No. ED 2700000.<br>Biological Action Levels: See Section K below. |  |                          |                   |
| <b>REGULATORY STANDARDS</b>   | <b>D.O.T. CLASSIFICATION:</b> ORM-8  | <b>I.D. No.:</b> NA 2291 | <b>49 CFR</b> 173 |
| D.O.T. Hazardous Materials Table: 49 CFR 172.101.   |  |                          |                   |
| <b>GENERAL</b>  | (a) Draibach, R.H., "Handbook of Poisoning", 10th ed., 1980, Lange Medical Publications, Los Altos, CA.<br>(b) NIOSH Criteria Document: "Occupational Exposure to Inorganic Lead", 1977, No. 78-158.<br>(c) NIOSH Criteria Document: "Occupational Exposure to Inorganic Fluorides", 1975, PB-246-692, NTIS.<br>(d) Patty's Industrial Hygiene and Toxicology, 3rd ed., 1981-82, Vol. 2A, pp. 1687-1726.<br>(e) NIOSH/OSHA: "Pocket Guide to Chemical Hazards", 1978 (8/80 printing).<br>(f) NFPA Manual 491 M, "Hazardous Chemical Reactions", 1975, 8th ed., 1984.<br>(g) Assoc. of American Railroads: "Emergency Handling of Hazardous Materials in Surface Transportation," 1981. |                          |                   |

**K. ADDITIONAL INFORMATION**

|  |
|--|
| <b>SECTION C — HAZARDS INFORMATION (Health)</b>  |
| <u>Permissible Concentration: Air</u> — continued  |
| TWA/TLV for "Fluorides, as F": OSHA/TWA: 2.5 mg/m <sup>3</sup> (as F). ACGIH/TLV: the same.  |
| <u>Biological Action Levels:</u>   |
| <u>Fluorides:</u> 7 mg/L urinary fluoride at end of 8-hr. workshift, corrected to sp. gr. of 1.024.<br>(Ref.: Allied Corp., Chemical Sector; value in use at Metropolis, IL, plant.)   |
| <u>Lead (Inorganic Compounds):</u> OSHA Lead Standard mandates medical removal at 60 micrograms/100 mL blood lead. See OSHA Lead Standard for further details.   |
| <u>Unusual Chronic Toxicity</u> — continued  |
| Excess <u>lead</u> absorption may damage the central and peripheral nervous system and the kidneys. Chronic exposure to <u>fluorides</u> may damage the kidney and cause fluorosis. Excess exposure to <u>lead</u> can impair the formation of blood cells; in addition, the fetus of pregnant women workers may be at increased risk, because <u>lead</u> is able to traverse the placenta barrier and enter the blood stream of the fetus. |
| <u>IARC Carcinogenicity Assessment</u> (Lead and Lead Cpd.): "Inadequate" (humans); "Sufficient" (animals — for some salts); "Inadequate" (short-term tests). Ref. IARC Monographs, Suppl. 4, 1982.  |

PSDS FILE # GC 3046

THIS PRODUCT SAFETY DATA SHEET IS OFFERED SOLELY FOR YOUR INFORMATION, CONSIDERATION AND INSPECTION.

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N O T I C E

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

| <u>CAS #</u> | <u>Chemical Name</u> | <u>% by weight</u> |
|--------------|----------------------|--------------------|
| -            | Lead Compounds       | 51                 |

This information must be included in all MSDSs that are copied and distributed for this product.


**PRODUCT SAFETY  
DATA SHEET**
**STANNOUS FLUOBORATE SOLUTION**
**A GENERAL INFORMATION**
*TIN FLUOBORATE*
*DEPT 05*

|   |                                       |  |   |
|---|---------------------------------------|--|---|
| TRADE NAME (COMMON NAME)<br><b>STANNOUS FLUOBORATE SOLUTION</b>   |                                       | CAS NO. <input type="checkbox"/> GENERAL PRODUCT CODE #<br><b>13814-97-6</b> |   |
| CHEMICAL NAME AND/OR SYNONYM<br>Stannous Fluoborate, aqueous solution      Synonym: Tin Fluoborate Solution<br>(Assay: 50-52% Sn(BF <sub>4</sub> ) <sub>2</sub> ) |                                       |  |   |
| FORMULA<br><b>Sn(BF<sub>4</sub>)<sub>2</sub> in water</b>   |                                       | MOLECULAR WEIGHT<br><b>292.21</b>  |   |
| ADDRESS (No., STREET, CITY, STATE AND ZIP CODE)<br><b>GENERAL CHEMICAL CORPORATION<br/>CN 1829<br/>Morristown, N.J. 07960-1829</b>                                |                                       |  |   |
| CONTACT<br><b>Director Environmental Matters</b>  | PHONE NUMBER<br><b>(201) 455-5630</b> | LAST ISSUE DATE  | CURRENT ISSUE DATE<br><b>Sept. 1986</b> |

**B FIRST AID MEASURES**

|   |  |
|---|--|
| <p><b>Eyes:</b> Flush eyes immediately for 15-20 minutes with large amounts of water, holding eyelids open to allow thorough flushing (use water only). Seek medical evaluation of potential corneal damage.</p> <p><b>Skin:</b> Promptly wash with plenty of soap and water, then flush with water until all chemical is removed. Get medical attention for any irritation. Remove any contaminated clothing and wash before reuse.</p> <p><b>Inhalation:</b> Remove to fresh air. If breathing is difficult, give oxygen if a qualified operator is available. If not breathing, give artificial respiration, preferably mouth-to-mouth. If symptoms persist, get medical help.</p> <p><b>Ingestion:</b> Do not induce vomiting. If conscious, give several glasses of milk or other calcium-containing liquids, or several ounces of milk of magnesia, if available; otherwise, give large quantities of water and arrange for immediate medical help.</p> | <b>EMERGENCY PHONE NUMBER</b><br><b>(201) 455-3700</b> |
|---|--|

**C HAZARDOUS INFORMATION**  
**HEALTH**

|  |  |
|--|--|
| <b>INHALATION</b><br>Inhalation of mist may irritate mucous membranes, nose, throat and lungs.   |  |
| <b>INGESTION</b><br>May cause severe damage to mouth, esophagus, stomach. May be fatal. May cause kidney damage and hypocalcemia, possibly severe, due to the fluoride content, which precipitates calcium stored in the body. Estimated fatal dose for solute is 5 grams. |  |
| <b>SKIN</b><br>May cause irritation and/or burns (especially with prolonged contact).  |  |
| <b>EYES</b><br>May cause severe irritation and/or corneal damage (burns).  |  |
| <b>PERMISSIBLE CONCENTRATION AIR</b><br>(SEE SECTION J)<br>ACGIH/TLVs: the same  | <b>OSHA/TWA:</b> 2.5 mg/m <sup>3</sup> (Fluoride, as F)<br>2 mg/m <sup>3</sup> (Inorg. Cpd.s. as Sn) |
| <b>BIOLOGICAL Action Level:</b><br>7 mg/L urinary fluoride at end of 8-hr. workshift, corrected to sp. gr. of 1.024.   |  |
| <b>UNUSUAL CHRONIC TOXICITY</b><br>See Section K.  |  |

**C. HAZARDS (Cont.)****FIRE AND EXPLOSION**

|  |                                     |    |                           |    |  |
|--|-------------------------------------|----|---------------------------|----|--|
| FLASH POINT  | N.A.                                | OC | AUTO IGNITION TEMPERATURE | OC | FLAMMABLE LIMITS IN AIR (% BY VOL.)                |
| Not flammable  |                                     |    | Not applicable            |    | LOWER — Not applicable      UPPER — Not applicable |
| <input type="checkbox"/> OPEN CUP  | <input type="checkbox"/> CLOSED CUP |    |                           |    |  |
| UNUSUAL FIRE AND EXPLOSION HAZARDS   |                                     |    |                           |    |  |
| High temperatures yield mists containing toxic stannous fluoborate, a corrosive agent on skin and some metals. |                                     |    |                           |    |  |

**D. PRECAUTIONS/PROCEDURES****FIRE EXTINGUISHING AGENTS RECOMMENDED**

Although not flammable itself, if involved in a fire use dry chemical, carbon dioxide or foam.

**FIRE EXTINGUISHING AGENTS TO AVOID**

Do not use water stream directly on material itself. Use water spray to absorb or disperse vapors.

**SPECIAL FIRE FIGHTING PRECAUTIONS**

Avoid breathing vapors and avoid bodily contact with the material. Firefighters should wear self-contained, NIOSH-approved breathing apparatus. If contact with the material is anticipated, wear full protective clothing. Use water spray to keep fire-exposed containers cool.

**VENTILATION**

If misty conditions prevail, use local exhaust or a special fully enclosed system (e.g., hood) as an alternative. Natural ventilation is normally adequate in the absence of misty conditions.

**NORMAL HANDLING**

Do not get in eyes, on skin or clothing. Avoid breathing mist, if formed. Observe good personal hygiene and good housekeeping practices. Wash thoroughly after handling; do not smoke or eat while handling. Use with adequate ventilation.

**ORAGE**

Store at moderate temperatures out of the sun in a dry, well-ventilated area, away from foodstuffs. Keep containers upright, tightly closed and protect from physical damage.

**SPILL OR LEAK (ALWAYS WEAR PERSONAL PROTECTIVE EQUIPMENT — SECTION E)**

Contain spill with readily available material (earth, sand, etc.) and recover, if possible. Otherwise, neutralize with sodium carbonate or other alkali and, using caution, flush with water, if permitted by applicable disposal regulations. Attempt to keep out of sewer. Mop or pump into suitable container, cover and label for storage or later disposal. Provide personal protection for personnel involved with clean-up operation.

**SPECIAL PRECAUTIONS/PROCEDURES/LABEL INSTRUCTIONS****SIGNAL WORD — DANGER!**

Stannous fluoborate solution should not be handled in glass equipment. Drum closures should be removed carefully to relieve possible internal pressure. Do not pressurize drums and do not reuse drums when empty.

**E. PERSONAL PROTECTIVE EQUIPMENT****RESPIRATORY PROTECTION**

For low levels ( $< 10 \times$  TLV) of mist, use NIOSH-approved dust or mist respirator. For intermediate levels of exposure ( $> 10 \times$  but  $< 100 \times$  TLV), use NIOSH-approved, full-face, air cleaning respirators for both lung and eye protection. For high levels, use NIOSH-approved, self-contained or supplied-air breathing systems.

**EYES AND FACE**

Under normal working conditions, wear chemical goggles; add a full-face plastic shield if solution may be splashed or sprayed and there is any possibility of liquid contacting the eyes. Do not wear contact lenses.

**HANDS, ARMS, AND BODY**

Wear impervious apron and gloves for routine product use. For increased protection, if repeated or prolonged contact with liquid is anticipated, wear impervious jacket and trousers. Remove promptly and wash any items upon contamination.

**OTHER CLOTHING AND EQUIPMENT**

Provide eyewash stations and quick-drench shower facilities near all solution handling equipment.

**F PHYSICAL DATA**

|  |   |   |  |
|--|---|---|--|
| <b>MATERIAL IS (AT NORMAL CONDITIONS):</b><br><input checked="" type="checkbox"/> LIQUID <input type="checkbox"/> SOLID <input type="checkbox"/> GAS<br><input type="checkbox"/> _____ |   | <b>APPEARANCE AND ODOR</b><br>Clear, colorless solution; essentially odorless.  |  |
| <b>BOILING POINT</b> °C<br>Unknown   | <b>SPECIFIC GRAVITY</b><br>(H <sub>2</sub> O = 1)<br>1.55 (approx.)               | <b>VAPOR DENSITY</b><br>(AIR = 1)<br>Not applicable   |  |
| <b>MELTING POINT</b> °C  |   |   |  |
| <b>SOLUBILITY IN WATER</b><br>(% by Weight)<br>Complete  | <b>pH</b><br>approximately 2  | <b>VAPOR PRESSURE</b><br>(mm Hg at 20°C) <input type="checkbox"/> (PSIG) <input type="checkbox"/><br>Not applicable<br>(water vapor only) |  |
| <b>EVAPORATION RATE</b><br>(Butyl Acetate = 1) <input type="checkbox"/> (Ether = 1) <input type="checkbox"/><br>Not applicable   | <b>% VOLATILES BY VOLUME</b><br>(At 20°C)<br>Not applicable<br>(water vapor only) |   |  |

**G REACTIVITY DATA**

|  |  |
|--|--|
| <b>STABILITY</b><br><input type="checkbox"/> UNSTABLE <input checked="" type="checkbox"/> STABLE   | <b>CONDITIONS TO AVOID</b><br>High temperatures (solution emits hazardous mist). |
| <b>INCOMPATIBILITY (MATERIALS TO AVOID)</b><br>Stannous fluoborate solution is acidic and will react with acid-incompatible materials; e.g., cyanides, sulfides. It may react vigorously with strong oxidizing agents.             |  |
| <b>HAZARDOUS DECOMPOSITION PRODUCTS</b><br>Stannous-fluoride, boron trifluoride gas (speculative). Boiling yields a toxic mist containing stannous fluoborate. In dilute solution, some hydrolysis to hydrofluoric acid may occur. |  |
| <b>HAZARDOUS POLYMERIZATION</b><br><input type="checkbox"/> MAY OCCUR <input checked="" type="checkbox"/> WILL NOT OCCUR   | <b>CONDITIONS TO AVOID</b><br>None known.  |

**H. HAZARDOUS INGREDIENTS (Mixtures Only)**

| MATERIAL OR COMPONENT / C.A.S. # | WT. % | HAZARD DATA (SEE SECT. J) |
|----------------------------------|-------|---------------------------|
| Not applicable.                  |       |                           |

**I. ENVIRONMENTAL**

|   |  |   |                |
|---|--|---|----------------|
| DEGRADABILITY/AQUATIC TOXICITY  |  | OCTANOL/WATER PARTITION COEFFICIENT     |                |
| Degradability: N.A. (inorganic)   |  | Unknown                                 |                |
| Aquatic Toxicity: LC50 (rainbow trout): 80 mg/L/24 hrs; 78 mg/L/48 thru 98 hrs.<br>EC50 (Daphnia magna): 87 mg/L/24 and 48 hrs.   |  |   |                |
| EPA HAZARDOUS SUBSTANCE (CLEAN WATER ACT SECT. 311) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO   |  | IF SO, REPORTABLE QUANTITY: -- #        | 40 CFR 116-117 |
| WASTE DISPOSAL METHODS (DISPOSER MUST COMPLY WITH FEDERAL, STATE AND LOCAL DISPOSAL OR DISCHARGE LAWS)  |  |   |                |
| Neutralize with caution, using any of the following agents: CaO; Ca (OH) <sub>2</sub> ; NaOH; KOH; Na <sub>2</sub> CO <sub>3</sub> . Do not sewer. Disposal of treated waste stannous fluoborate solution may be subject to federal, state and local regulations. Users should review their operations in terms of applicable federal, state and local laws and regulations, then consult with appropriate regulatory agencies before discharging or disposing of waste material. Waste may have to be disposed of by an approved, licensed contractor. |  |   |                |
| RCRA STATUS OF UNUSED MATERIAL IF DISCARDED   |  | HAZARDOUS WASTE NUMBER: (IF APPLICABLE) | 40 CFR 261     |
| EPA "hazardous waste" (corrosive), if discarded.  |  | D002                                    |                |

**J. REFERENCES**

|  |                    |            |
|--|--------------------|------------|
| PERMISSIBLE CONCENTRATION REFERENCES   |                    |            |
| TWA: OSHA Standard, 29 CFR 1910 (1982), 'Z List'   |                    |            |
| TLV: ACGIH 1984-85 List, "Threshold Limit Values for Chemical Substances..."                                 |                    |            |
| Biological Action Level; Allied/Signal Corporation; value in use at Metropolis, IL, plant.                   |                    |            |
| Aquatic Toxicity Allied/Signal Corporation data, Report MA-29-78-1 (1983).                                   |                    |            |
| REGULATORY STANDARDS   | DOT CLASSIFICATION | 49 CFR 173 |
|  | Corrosive material |            |
|  | I.D. No.: UN 1760  |            |
| D.O.T. Classification by Allied Corp., Chemical Sector; Skin Corrosivity Test; Report No. MA-28-78-5 (1983). |                    |            |

**GENERAL**

- (a) NIOSH Criteria Document No. 76-103, "Occupational Exposure to Inorganic Fluoride", 1975, PB-246-692, NTIS.  
 (b) ACGIH: "Documentation of TLVs", 4th edition.  
 (c) Patty's "Industrial Hygiene and Toxicology", 3rd. ed., (1981-82), Vol. 2A.

**K. ADDITIONAL INFORMATION****SECTION C - HAZARDS INFORMATION**Unusual Chronic Toxicity

We have no data on Stannous Fluoborate Solution, per se. However, NIOSH has linked certain other fluoborate compounds with inorganic fluorides [reference (a), above]. Chronic exposure to fluorides is associated with osseous fluorosis (increased radiographic density of bones, the mottling of teeth, etc.). [This condition will not develop if permissible exposure levels are not exceeded.]

Kidney damage, asthma and symptoms resembling rheumatism may also occur.

PSDS FILE#- GC 3021

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**Agmet Metals Inc.**

7800 Medina Street • Oakwood Village, OH 44146

 Call Joseph Schiller at  
(612)403-0349 if you need  
assistance with this form.

**MATERIAL PROFILE**

 COMPANY NAME: Federal Mogul Corp EPA ID. # \_\_\_\_\_

 STREET ADDRESS: 510 E. Grove St.

 CITY-STATE-ZIP: Granville, OH 43838

 CONTACT NAME: Laura Shears PHONE: 616-754-1219
**MATERIAL CHARACTERIZATION**

 NAME OF MATERIAL: Tin Lead Bath Solids

 PHYSICAL STATE: \_\_\_\_\_ SCRAP METAL ☒ WET SLUDGE \_\_\_\_\_ DRY SLUDGE \_\_\_\_\_ SLURRY

\_\_\_\_\_ LIQUID \_\_\_\_\_ % SOLIDS IS \_\_\_\_\_ % MOISTURE IS \_\_\_\_\_

 ARE FREE LIQUIDS PRESENT? ☒ YES \_\_\_\_\_ NO IF "YES", VOL % 2-5

FLASH POINT (Indicate degrees F or C): \_\_\_\_\_

CHEMICAL ANALYSIS (WEIGHT PERCENT UNLESS INDICATED OTHERWISE):

**INORGANICS:**

|                                  |                                |   |
|----------------------------------|--------------------------------|---|
| NICKEL _____                     | CALCIUM _____                  | SULFATE _____   |
| COBALT _____                     | SODIUM _____                   | FLUORIDE <input checked="" type="checkbox"/>            |
| CHROMIUM _____                   | PLATINUM _____                 | CHLORIDE _____  |
| COPPER _____                     | PALLADIUM _____                | OTHERS: <u>Lead</u> <input checked="" type="checkbox"/> |
| ZINC _____                       | GOLD _____                     | <u>Tin</u> <input checked="" type="checkbox"/>          |
| IRON _____                       | SILVER _____                   | _____   |
| VANADIUM _____                   | AMMONIA _____                  | _____   |
| CADMIUM _____                    | CYANIDE _____                  | _____   |
| SILICA (SAND) _____              | DIATOMACEOUS EARTH _____       |   |
| PH (IF APPROPRIATE) <u>&lt;1</u> | SP. GRAVITY (IF APPROP.) _____ |   |

**ORGANICS:**

 DOES MATERIAL CONTAIN: None that we know of.

|                   |                             |                                |
|-------------------|-----------------------------|--------------------------------|
| _____ CYANIDES    | _____ SULFIDES              | _____ PHENOLICS                |
| _____ PCB'S       | _____ ASBESTOS              | _____ KNOWN CARCINOGENS        |
| _____ EXPLOSIVES  | _____ POISONS               | _____ SUSPECT CARCINOGENS      |
| _____ PYROPHORICS | _____ PESTICIDES/HERBICIDES | _____ CHLORINATED HYDROCARBONS |

DESCRIBE IN DETAIL THE PROCESS GENERATING THIS MATERIAL:

Plating bath is filtered and these solids are collected on filter paper.

IS THIS MATERIAL CURRENTLY BEING MANAGED BY:

|   |
|---|
| _____ RECYCLING? HOW, AND BY WHOM? _____  |
| _____ DISPOSAL IN A SANITARY OR MUNICIPAL SOLID WASTE LANDFILL?                   |
| _____ DISPOSAL IN A HAZARDOUS WASTE LANDFILL?                                     |
| _____ STORAGE IN _____ PILES, _____ IMPOUNDMENT, _____ DRUMS, _____ OTHER? _____? |
| _____ CHEMICAL FIXATION OR STABILIZATION FOLLOWED BY DISPOSAL?                    |

**REGULATORY CLASSIFICATION OF MATERIAL**U.S. EPA HAZARDOUS WASTE? \_\_\_\_\_ YES \_\_\_\_\_ NO ☒ PRESENTLY EXEMPTIF "YES" \_\_\_\_\_ LISTED WASTE, OR  
\_\_\_\_\_ CHARACTERISTIC WASTE?\_\_\_\_\_ EP TOXIC? \_\_\_\_\_ REACTIVE?  
\_\_\_\_\_ CORROSIVE? \_\_\_\_\_ IGNITABLE?WHAT IS THE HAZARDOUS WASTE CODE? D002 / D008 (if dispIF "PRESENTLY EXEMPT," PLEASE EXPLAIN: This is a by-product beingrecycled and therefore not a solid waste under RCRAIS MATERIAL SUBJECT TO CLASSIFICATION UNDER STATE CODES? \_\_\_\_\_ YES ☒ NO

IF "YES" GIVE STATE AND CODE: \_\_\_\_\_

ACCORDING TO U.S. EPA RCRA REGULATIONS, IS THIS MATERIAL A: (Check only one)

\_\_\_\_\_ SLUDGE ☒ BY-PRODUCT \_\_\_\_\_ SPENT MATERIAL \_\_\_\_\_ UNKNOWN  
\_\_\_\_\_ SCRAP METAL \_\_\_\_\_ COMMERCIAL CHEMICAL PRODUCT**SHIPPING INFORMATION:**

DOT INFORMATION:

HAZARDOUS MATERIAL? ☒ YES \_\_\_\_\_ NOPROPER SHIPPING NAME: CorrosiveHAZARD CLASS: 3

REPORTABLE QUANTITY: \_\_\_\_\_

U.N./NA# 1760

PACKING GROUP # \_\_\_\_\_

PLACARD REQUIREMENT: Yes

IS THERE A SHIPPING LABEL FOR THIS WASTE? \_\_\_\_\_ (IF YES, ATTACH)

HAZARDOUS WASTE MANIFEST REQUIRED? \_\_\_\_\_ FED REGS \_\_\_\_\_ STATE REGS

VOLUME: AMOUNT 12-15 lbs PER DAY / WEEK / MONTH / QUARTER YEAR (ONE-TIME (Circle One))PACKAGING: DRUMS BOXES NYLON BAGS BULK (Circle One)

IS THERE AN MSDS FOR THIS MATERIAL? \_\_\_\_\_ (IF YES, ATTACH)

**COMMENTS:** (PLEASE PROVIDE ANY OTHER PERTINENT INFORMATION AND LIST ANY ATTACHMENTS):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_**..... CERTIFICATION .....**

I CERTIFY THAT THE IDENTIFICATION OF THE MATERIAL OFFERED FOR RECYCLING AND DESCRIBED IN THIS PROFILE FORM AND ANY SUPPLEMENTS ATTACHED HERETO IS COMPLETE, TRUE AND ACCURATE. MY CERTIFICATION IS BASED ON MY PERSONAL KNOWLEDGE AND/OR INFORMATION SUBMITTED BY OTHERS RESPONSIBLE FOR OBTAINING THE INFORMATION, ABOUT WHICH I HAVE MADE DILIGENT INQUIRIES TO SATISFY ME THAT IT IS COMPLETE.

SIGNATURE

PRINT NAME AND TITLE

DATE